Cryptosporidiosis and Treatment

Is there a treatment for diarrhea caused by *Cryptosporidium*?
Yes.[1,2] FDA licensed nitazoxanide (Alinia®, Romark Laboratories, Tampa, FL, USA) for treatment of cryptosporidiosis in children aged 1-11 years in November 2002. In June 2004, nitazoxanide was also licensed for older children and adults. It can now be prescribed for all patients ≥ 1 year of age.

What age groups can be treated with nitazoxanide?
In 2004, the FDA licensed nitazoxanide for all persons ≥ 1 year of age. It had previously been licensed in 2002 for only children aged 1-11 years.

What is the dosage used for nitazoxanide?

Immunocompetent Persons [3]	
Adult dosage	500 mg BID x 3 days
Pediatric dosage	1-3 years: 100 mg BID x 3 days
	4-11 years: 200 mg BID x 3 days

Nitazoxanide oral suspension (100 mg/5ml; patients ≥ 1 year of age) and Nitazoxanide tablets (500 mg; patients ≥ 12 years of age) are indicated for the treatment of diarrhea caused by *Cryptosporidium*.

What is the efficacy?
Clinical cure (resolution of diarrhea) rates range from 72-88%.[1] Parasitologic cure (no *Cryptosporidium* detected in stool) rates range from 60-75%.[1] Parasitologic cure rate was a key consideration in developing prevention recommendations that ask people to refrain from swimming for 2 weeks after resolution of symptoms. Retesting of treated persons is not considered necessary.

How rapidly does the drug work?
It may take up to 5 days for diarrhea to resolve in approximately 80% of patients.[4] Because of this and the lower parasitologic cure rate, CDC still recommends that all infected persons, including those who have completed treatment, do not swim for 2 weeks after resolution of symptoms. It is critical that this recommendation is followed to prevent the spread of this chlorine-resistant parasite through public swimming pools and other aquatics venues.

My patient is still ill. What other treatment regimens have been tried?
Nitazoxanide appears to be well tolerated and different treatment regimens have

been used for a variety of infections. Immunocompetent persons with cryptosporidiosis have been treated with multiple 3-day courses of nitazoxanide.[5] Seven-day courses have also been used in early studies for cryptosporidiosis and other parasitic infections.[6,7] AIDS patients with *Cryptosporidium*-associated diarrhea received the drug for 28 days.[8]

What about patients with compromised immune systems?

Nitazoxanide has been approved for treatment of diarrhea caused by *Cryptosporidium* in people with healthy immune systems. It is presently not approved to treat immunodeficient persons because nitazoxanide oral suspension and nitazoxanide tablets have not been shown to be superior to placebo for the treatment of diarrhea caused by *Cryptosporidium* in HIV-infected or immunodeficient patients.[1]

What should I tell my patients with cryptosporidiosis about swimming?

Cryptosporidium now causes over half of the reported waterborne disease outbreaks associated with swimming in chlorinated public swimming pools.[9] *Cryptosporidium*'s chlorine resistance and documented excretion for weeks after resolution of symptoms has led CDC and The American Academy of Pediatrics [10] to recommend that all persons refrain from swimming until 2 weeks after resolution of symptoms.

References

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